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BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C.

In the Matter of:	)	
	)	
Amendment of Parts 2 and 15 of the	)	ET Docket No. 94-124
Commission's Rules to Permit Use of	)	RM-8308
Radio Frequencies Above 40 GHz for	)	
New Radio Applications	)	

To: The Commission

JOINT COMMENTS OF EDUCATIONAL PARTIES

The American Council on Education, American Association of Community Colleges, California State University, Sacramento, Education Network of Maine, State of Wisconsin Educational Communications Board, and University of Wisconsin System (collectively, the "Educational Parties"), by their attorneys, submit these comments in response to the Notice of Proposed Rule Making in ET Docket No. 94-124, RM-8308 (released November 8, 1994) ("Notice"), relating to the use of frequencies above 40 GHz for, among other things, a Local Millimeter Wave Service ("LMWS"). The Educational Parties support the creation of the LMWS at 40.5-42.5 GHz. They also urge the FCC to accommodate educational needs in the LMWS.

Educational Parties

The American Council on Education. ACE, founded in 1918, is one of the nation's leading higher education organizations. Its members include more than 1,500 colleges and universities, both public and private, as well as other higher education groups. ACE aims to promote and preserve the goals of higher education, including the interests of its constituent institutions, faculty and administrators.

American Association of Community Colleges. AACC is the national representative of community, technical and junior colleges, with over 1,000 member institutions. It seeks to increase public understanding of the mission and philosophy of its members and of their contributions to individuals and our nation.

California State University, Sacramento. CSU, Sacramento is part of the largest undergraduate teaching university in the United States. CSU, Sacramento is a significant user of distance learning technology, including ITFS, satellite and compressed video.

Education Network of Maine. ENM is a service of the University of Maine System, offering telecommunicated instruction throughout the State of Maine. The University is one of the country's largest ITFS users, operating nearly 30 ITFS stations in seven regions of the state, and is recognized as an innovator in distance learning.

State of Wisconsin - Educational Communications Board. Wisconsin-ECB is an agency of the State of Wisconsin overseeing educational telecommunications activities

within the state. ECB operates the Wisconsin public television and radio networks, as well as a number of ITFS facilities.

University of Wisconsin System. UWS is a major state university system operating 13 campuses throughout the State of Wisconsin. UWS, with the State Educational Communications Board, operates the Wisconsin public radio and public TV networks. It is licensee of public TV, public radio and ITFS stations. It is also a significant player in instructional telecommunications technologies.

Need for Educational Telecommunications

The Educational Parties and others have often urged the Commission to recognize that education is critical in achieving our country's national agenda, particularly with respect to economic development and international competitiveness. Telecommunications technology must play an important role in delivering education and training to schools, businesses and homes. The Congressional Office of Technology Assessment ("OTA") has noted that rapid advances in technology are creating distance learning systems that are far more powerful, flexible and, increasing, affordable than anything in the past.[1/] The National Telecommunications and Information Administration ("NTIA") has noted the widening consensus that telecommunications can be a powerful tool for delivering educational services to students of all ages and in all areas.[2/]

1/ Linking for Learning: A New Course for Education, Office of Technology Assessment (1989).

2/ The NTIA Infrastructure Report: Telecommunications in the Age of Information, DOC/NTIA (1991).

Long haul technologies such as fiber optics, satellites and microwave facilities already exist in many places to serve educational needs. Many areas also have local distribution technologies such as ITFS that can serve institutional sites such as schools and government buildings. However, there continues to be a need for cost-effective "last mile" technologies that can serve individual homes and businesses in a manner that provides sufficient capacity, flexibility and interactivity.

LMWS Can Serve the "Last Mile" Function

The Local Millimeter Wave Service at 40.5-42.5 GHz, as described by the Commission in the Notice, appears to offer the capability of bridging the gap in the delivery of educational services to small facilities and individual users. The multipoint and two-way capabilities of LMWS technology, together with the cellular design of LMWS systems, could provide effective public access to educational telecommunications resources.

Depending on the ultimate structure of the service, LMWS as a "last mile" technology could be superior to anything else now available, including ITFS, due to the large capacity of LMWS systems and the flexibility to operate with a different mix of services (video, voice and data) in particular geographic areas in a market. The Notice at ¶ 9 recognizes that LMWS systems could provide short-range wireless access to the National Information Infrastructure.

The Educational Parties are not in a position to state that LMWS would be the "last mile" technology of choice in any given area. However, LMWS may very well be the

best technology for certain purposes and areas. In such an event, it would be unfortunate if the FCC turns all of the LMWS spectrum over to other uses.

The LMWS Service Needs to Accommodate Educational Needs

The Notice, at ¶ 23, proposes to model LMWS licensing rules after the rules and procedures proposed for the Local Multipoint Distribution Service ("LMDS") in the 28 GHz band. Thus, the 40.5-42.5 GHz band would be divided into two license blocks of 1,000 MHz each for exclusive assignment in each area. The FCC would use Rand McNally Major Trading Areas for licensing purposes. It would also award licenses through the use of auctions based on its conclusion that the principal use of the LMWS spectrum is likely to be of a commercial nature and involve the receipt by the licensee of compensation from subscribers.

Unfortunately, these proposals all but ensure that educators would never have the opportunity to use this technology. The FCC does not propose to reserve any of the LMDS spectrum for educational use, and it does not design the application and licensing requirements and procedures to give educators any chance to prevail in an auction for the spectrum.

In this proceeding, unlike the LMDS 28 GHz proceeding, the FCC has not even tipped its hat to public service by seeking comment on the possibility of a set-aside of some portion of the LMWS spectrum. The FCC focuses on the prospects of short-term demand for commercial subscription-based services, an approach destined to produce a determination that the spectrum be given over to commercial uses. Educational and nonprofit uses, by contrast,

require advance study and careful proposal development. The whole point of a set-aside is to give longer range public service uses a chance to develop. Moreover, the proposed selection process for LMWS -- an auction -- all but forecloses access to the spectrum by educators.

The FCC Should Reserve One System In Each Market and Apply Different Rules

The Educational Parties propose that one of the two 1,000 MHz LMWS allocations be reserved for educational and public service uses by appropriately qualified educational or governmental licenses. During the next several years, the FCC should permit educators to do wide-spread testing of various educational applications of LMWS. Ultimately, the FCC needs to develop a separate set of LMWS rules for the reserved frequencies that establish reasonable application requirements, implementation standards and permissible use guidelines. In the event of competing applications, the FCC needs to develop a selection mechanism that will efficiently authorize new service and comparative factors that will favor applicants agreeing to operate integrated LMWS systems that will accommodate the educational needs of interested entities.

The Educational Parties understand the FCC's reluctance to reserve spectrum in the absence of demonstrated existing educational demand for the technology. However, it will take more time and study before such demand develops (or does not develop). Ultimately, perhaps something less than an entire 1000 MHz of spectrum will be necessary to accommodate educational needs. In the meantime, the FCC should not foreclose permanently the educational option. If the FCC does not now believe that the prospective educational demand for LMWS is such that a permanently-reserved allocation is appropriate, it might

consider a temporary reservation of one of the LMWS frequency groups in each market for a reasonable period of time to allow the technology to be studied and implemented. At the end of this period -- say, five years -- the spectrum could be subject to reallocation where not educational uses or applications have been made.

The FCC Should Also Require Access by Educational Users on Commercial Facilities

The FCC should also consider requiring commercial LMWS licensees to provide access for educators seeking to distribute their programming or other services to the public. Such access would serve those entities who do not have the need for or capability of constructing and operating an entire LMWS system throughout a MTA, but need to provide educational programming and other functions (interactivity, data transfer, etc.) within certain areas. Congress, the FCC and/or local franchising authorities have already mandated educational access to other multichannel TV technologies such as cable TV, wireless cable and DBS. It seems unlikely that homes subscribing to an LMWS system would also subscribe to one of these other technologies. Therefore, some sort of educational access obligation should be placed on LMDS licensees as a condition on the grant of their licenses.

More Detailed Rules Can be Developed in a Later Proceeding Governing Educational Set-Asides and Access

In an effort to simplify their presentation in this proceeding, the Educational Parties have stressed the need for an educational frequency reservation and for educational access to commercial LMDS systems. The FCC should now generally adopt reservations/access provisions as requested. However, the FCC does not need to decide here

all the potentially complicated issues relating to the actual operation of these provisions. They can be addressed in greater depth in a separate proceeding once the FCC approves the general notion of the reservation and access. Once that has happened, the FCC could reasonably expect substantial interest by educators in the follow-up proceeding. Given the fact that educational LMWS use is likely to develop somewhat slowly over the next several years as the application of the technology is studied and tested, the delay in adopting precise rules should not be a problem. In the meantime, the FCC must remain flexible in granting experimental authorizations and special temporary authority to permit testing and development of the technology.

Conclusion

The Educational Parties urge the FCC to adopt LMDS rules that provide for educational reservation of one-half of the spectrum and for educational access to commercial LMWS systems.

Respectfully submitted,

AMERICAN COUNCIL ON EDUCATION

AMERICAN ASSOCIATION OF COMMUNITY COLLEGES

CALIFORNIA STATE UNIVERSITY, SACRAMENTO

EDUCATION NETWORK OF MAINE

STATE OF WISCONSIN-EDUCATIONAL COMMUNICATIONS BOARD

UNIVERSITY OF WISCONSIN SYSTEM

By: Todd D. Gray
Todd D. Gray
Kenneth D. Salomon

Their Attorneys

DOW, LOHNES & ALBERTSON
1255 Twenty-third Street, N.W.
Suite 500
Washington, D.C. 20037
(202)857-2571

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